

FIN


July

# HUDSON BAY MINING AND SMELTING CO., LIMITED



A N N U A L   R E P O R T

1965



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## THIRTY-EIGHTH ANNUAL MEETING OF SHAREHOLDERS:

April 29, 1966, at Royal York Hotel, Toronto, Canada.

A request for proxies will be mailed to all shareholders during the latter part of March, 1966.



# HUDSON BAY MINING AND SMELTING CO., LIMITED

<b>HEAD OFFICE</b>	333 BROADWAY, FOURTH FLOOR, WINNIPEG 1, MANITOBA, CANADA
<b>MINE OFFICE</b>	FLIN FLON, MANITOBA
<b>TORONTO OFFICE</b>	25 KING STREET WEST, TORONTO 1, ONTARIO, CANADA
<b>NEW YORK OFFICE</b>	280 PARK AVENUE, NEW YORK, N.Y. 10017
<b>CAPITAL</b>	AUTHORIZED.....3,000,000 Shares of no par value ISSUED AND OUTSTANDING.....2,757,973 Shares of no par value
<b>DIRECTORS</b>	SIR KEITH ACUTT, K.B.E.                      J. F. McCARTHY ERIC S. AUSTIN                                  H. C. F. MOCKRIDGE, Q.C. CHARLES W. ENGELHARD                      MAURICE W. RUSH GEORGE M. FRANCIS                          NORMAN C. URQUHART, C.B.E. W. A. GREEN                                      C. V. WHITNEY
<b>OFFICERS</b>	MAURICE W. RUSH.....Chairman of the Board and President ERIC S. AUSTIN.....Executive Vice-President GEORGE M. FRANCIS.....Vice-President J. F. McCARTHY.....Secretary and Treasurer A. R. BLAKE.....Assistant Secretary and Assistant Treasurer E. A. RUMMERY.....Assistant Secretary and Assistant Treasurer
<b>TRANSFER AGENTS</b>	MORGAN GUARANTY TRUST COMPANY OF NEW YORK.....23 Wall St., New York, N.Y. THE ROYAL TRUST COMPANY.....105 St. James Street West, Montreal, Quebec THE ROYAL TRUST COMPANY.....66 King Street West, Toronto 1, Ontario THE ROYAL TRUST COMPANY.....287 Broadway Avenue, Winnipeg 1, Manitoba
<b>REGISTRARS</b>	THE CHASE MANHATTAN BANK.....1 Chase Manhattan Plaza, New York, New York MONTREAL TRUST COMPANY.....511 Place d'Armes, Montreal, Quebec CROWN TRUST COMPANY.....302 Bay Street, Toronto 1, Ontario CROWN TRUST COMPANY.....364 Main Street, Winnipeg 1, Manitoba
<b>AUDITORS</b>	DELOITTE, PLENDER, HASKINS & SELLS.....Winnipeg PEAT, MARWICK, MITCHELL & CO.....New York

**MANAGEMENT AND OPERATING PERSONNEL:**

W. A. MORRICE.....	General Manager	Flin Flon
H. A. McKENZIE.....	Assistant General Manager	Flin Flon
G. H. McINTOSH.....	Assistant to the General Manager	Flin Flon
L. W. OGRYZLO.....	Director of Exploration	Toronto
C. O. BUCHANAN.....	Manager, Metal Sales	Winnipeg
J. D. PURVIS.....	Assistant Manager, Metal Sales	Toronto
J. L. AYRE.....	Purchasing Agent	Winnipeg
J. H. BURGOYNE.....	Traffic Manager	Winnipeg
J. S. WARICK.....	Superintendent of Mines	Flin Flon
A. E. STEPHANSSON.....	Mine Superintendent — Flin Flon Area	Flin Flon
R. G. SADLER.....	Mine Superintendent — Snow Lake Area	Snow Lake
D. J. ROBERTSON.....	Research Superintendent	Flin Flon
W. L. BURROWS.....	Concentrator Superintendent	Flin Flon
R. E. MAST.....	Smelter Superintendent	Flin Flon
W. E. McFADDEN.....	Zinc Plant Superintendent	Flin Flon
M. N. COLLISON.....	Mechanical and Construction Superintendent	Flin Flon
G. HAMMERSTAD.....	Electrical Superintendent	Flin Flon
F. H. GUMMERSON.....	Powerhouse Superintendent	Flin Flon
B. F. GRIMMELT.....	Surface and Transportation Superintendent	Flin Flon
O. C. CHRISTENSEN.....	Hydro Plant Superintendent	Island Falls
E. A. MORE.....	Air Transport Superintendent	Flin Flon
DR. J. B. HOWKINS.....	Geological Consultant	Flin Flon
K. A. GAMEY.....	Resident Geologist	Toronto
R. L. PRICE.....	Chief Geologist — Exploration	Flin Flon
R. B. CAIRNS.....	Chief Geologist — Mining	Flin Flon
J. R. BRAY.....	Chief Engineer of Mines	Flin Flon
N. IANNONE.....	Safety Superintendent	Flin Flon
P. ROW.....	Chief Designer	Flin Flon
W. H. BARKER.....	Chief Field Engineer	Flin Flon
D. B. McGILVRAY.....	Chief Clerk	Flin Flon
L. G. JOHNSON.....	Personnel Supervisor	Flin Flon
J. L. SPENCER.....	Manager — Power Utility	Flin Flon
C. C. MERRELL.....	Chief Accountant	Flin Flon
R. W. BLOOMFIELD.....	Paymaster	Flin Flon
J. PUTNEY.....	Storekeeper	Flin Flon
G. F. CLARK.....	General Manager — Diecastings Plant	Toronto
D. B. CLARK.....	General Manager — Zinc Oxide Plant	Montreal



## PROPERTIES *and Subsidiary Companies*

### **PROPERTIES:**

Flin Flon Mine and Metallurgical Plants.  
Schist Lake Mine.  
White Lake Mine.  
Chisel Lake Mine.  
Stall Lake Mine.  
Osborne Lake Mine.  
Anderson Lake Mine.  
Ghost Lake Mine.

### **WHOLLY OWNED SUBSIDIARY COMPANIES:**

Churchill River Power Company Limited.  
Northern Manitoba Power Company Limited.  
Northern Power Limited.  
Hudson Bay Exploration and Development Company Limited.  
Hudson Bay Air Transport Limited.  
Beaver Exploration Company.  
Zinc Oxide Company of Canada Limited.  
Durham Industries (Canada) Ltd.  
Hudson Bay Diecastings Limited.  
Hudson Bay Holdings Limited.

### **MAJORITY CONTROLLED SUBSIDIARY COMPANIES:**

Manitoba Chromium Limited.  
Flexar Mines Limited.  
Hudson-Yukon Mining Co., Limited.



## 1965 HIGHLIGHTS *(with comparative figures for 1964)*

### MATERIALS TREATED (Tons)

	1965	1964
Milling ore .....	1,640,328	1,585,394
Direct smelting ore .....	—	1,083
Zinc plant residue .....	88,352	90,915
Smelter oxide .....	11,052	11,137
Custom materials .....	14,412	15,488
Purchased materials .....	6,446	—

### PRODUCTION

Slab zinc .....	142,870,455 (lbs.)	142,024,215 (lbs.)
Metallic cadmium .....	368,208 (lbs.)	329,552 (lbs.)
Refined copper .....	79,452,527 (lbs.)	80,833,562 (lbs.)
Selenium .....	62,061 (lbs.)	70,335 (lbs.)
Gold .....	82,189 (ozs.)	80,174 (ozs.)
Silver .....	1,215,359 (ozs.)	1,179,888 (ozs.)
Lead concentrates .....	2,375 (tons)	2,598 (tons)

### FINANCIAL RESULTS

Revenue from sales of metals and products ..	\$61,204,027	\$55,885,069
Net earnings .....	\$15,990,045	\$13,095,323
Net earnings per share .....	\$5.80	\$4.75
Dividends paid per share .....	\$3.75	\$3.50

### METAL PRICES

Average price received per pound of copper	39.36¢	34.245¢
Average price received per pound of zinc ..	15.703¢	15.138¢



## REPORT OF THE DIRECTORS

### To the Shareholders

**W**E HAVE pleasure in submitting the auditors' report and the consolidated Balance Sheet as at December 31, 1965, together with the consolidated statements of profit and loss and earned surplus for the year 1965.

The world demand for non-ferrous metals was strong throughout 1965 and resulted in our company receiving a substantially higher average price for copper; there also was an improvement in the average price received for zinc. These were the principal factors contributing to increased revenue from metal sales, which totalled \$61,204,027 and exceeded the 1964 figure by \$5,318,958.

Net profit for the year was \$15,990,045 equal to \$5.80 per share, compared with \$13,095,323 and \$4.75 in 1964. Three quarterly dividends of 75 cents each and a final quarterly of 85 cents, together with a year-end extra of 65 cents, raised the total dividend distribution to \$3.75 per share compared with \$3.50 in 1964. This was the third successive year in which the total dividend distribution was increased.

In last year's report mention was made of a policy decision to invest more of our funds in the common shares of leading Canadian companies, and in the year under review the investment base was extended to include, through the medium of a subsidiary company, a portfolio of leading South African gold and diamond shares. Shareholders will have noted that at the end of 1965 the total cost of investments in marketable securities of other companies was \$18,851,904 (market value \$19,281,101); of this, an amount of \$16,735,140 had been placed in Canadian and

\$2,116,764 in South African investments. In terms of percentages, the investment distribution by cost was 27.29% in companies engaged in non-ferrous metal mining, 19.02% in gas, oil and pipe lines, 11.93% in pulp and paper, 9.25% in chemicals, 7.60% in public utilities, 5.78% in steel, 5.48% in railroads, 2.42% in banking, and 11.23% in South African gold and diamond securities.

Funds allocated for portfolio investment in 1965 totalled \$11,213,750. Additionally, during the year we devoted some \$2,200,000 to the establishment of our wholly owned subsidiary company Hudson Bay Diecastings Limited. Shareholders will recall that at the last General Meeting of shareholders a year ago, mention was made of the intention to broaden our position in secondary industry through entry into the die-casting field. We are glad to report that notwithstanding an initial delay occasioned by a six-week strike in the building industry, the new factory at Bramalea, Ontario, which is one of the finest diecasting and plating plants in the world at the present time, was for all practical purposes completed by mid-February 1966 and came into production before the end of that month. We were fortunate in being able to recruit the key personnel in this project early and we have had the benefit of their knowledge and enthusiasm throughout the design and construction stages.

The funds devoted to the equity investment programme and to the establishment of the die-casting subsidiary, in addition to the normal capital expenditure needs of the company, were



supplied from working capital and this is reflected in a decrease in the total of current assets from \$51,405,019 at the end of 1964 to \$42,115,582 at the end of 1965. Nevertheless, the liquid position remains strong and the available financial resources are very large.

The annual report of the General Manager is set out on the following pages and it gives comprehensive coverage of the operations of the company during 1965.

In addition to the prospecting activities of Hudson Bay Exploration and Development Company Limited described in the General Manager's report, the company contributed to the cost of studies of the feasibility of exploiting the high grade iron ore deposits held by Baffinland Iron Mines Limited. These studies, which deal with all aspects of capital and operating costs and with shipping considerations, have now been received and are being examined. It is evident, even at this early stage, that apart from the keenly competitive situation which exists in a world almost embarrassed with vast discoveries of good grade iron ore, the development of this fine ore body in the remote wilderness of northern Baffinland will depend largely on the amount of co-operation and assistance which the Federal Government may be able to provide in the interests of the North West Territories, particularly in the fields of transportation, power, Eskimo housing and training.

There was no slackening of prospecting effort during the year and including our share of the cost of investigating the copper deposit owned by Stikine Copper Limited, in British Columbia,

and the iron ore deposit owned by Baffinland Iron Mines Limited, the company spent some \$3,100,000 on exploration conducted by its own crews and by other companies with which we have participations in joint ventures. It is noteworthy that our exploration crews completed 154,832 feet of surface drilling on optioned and company owned claims. A new element was introduced into our prospecting activities during the year when the company took up modest participations with oil companies in prospecting operations for oil and gas in the Provinces of Alberta and Saskatchewan. The general policy is to avoid purely speculative projects and rather to seek interests in proven or semi-proven areas. Land in such areas is, of course, expensive but we have been encouraged by some success, particularly in the districts of Hondo-Mitsue, Alberta, and Rapdan, Saskatchewan.

Ore developed at the various mines was more than sufficient to replace ore mined during the year so that reserves at the year-end totalled 16,842,400 tons, an increase of 215,000 tons over the figure at the end of 1964.

It is finally our pleasant duty to acknowledge, on behalf of shareholders, the loyal and efficient services rendered by the Managerial staff and by all employees at the mines and at the Winnipeg and Toronto offices of the company.

*Maurice W. Rust.*

March 8, 1966.

President.





*Pouring waste slag from  
the Flin Flon copper  
smelter.*



*Mechanical loading  
operation at the  
Flin Flon Mine.*



## **GENERAL MANAGER'S REPORT**

January 14, 1966.

Mr. M. W. Rush, President,  
Hudson Bay Mining and Smelting Co., Limited.

The following is a report of operations of Hudson Bay Mining and Smelting Co., Limited for the year 1965.

### **ORE TREATED**

The mill treated 1,640,328 tons of ore, an increase of 54,934 tons over the previous year. Of the above, 53.27 per cent came from the Flin Flon Mine, 17.71 per cent from the Chisel Lake Mine, 17.34 per cent from the Stall Lake Mine, 5.03 per cent from the Coronation Mine, and 6.65 per cent from the Schist Lake Mine.

### **PRODUCTION**

Metal production for the year was as follows: refined copper, 79,452,527 pounds; slab zinc, 142,870,455 pounds; cadmium, 368,208 pounds; selenium, 62,061 pounds; gold, 82,189 ounces; and silver, 1,215,359 ounces.

Also produced and sold were 2,375 tons of lead concentrates containing 1,952 ounces of gold, 73,265 ounces of silver, and 2,522,551 pounds of lead.

### **ORE RESERVES**

Proven ore reserves as of December 31st, 1965, totalled 16,842,400 tons with the following average assays: Au, 0.045 oz. per ton; Ag, 0.76 oz. per ton; Cu, 2.98%; Zn, 4.5%; and Pb, 0.3%. At the end of the previous year the ore reserves were 16,627,400 tons.

### **MINE EXPLORATION**

Extensive diamond drilling for exploration purposes was carried out in the operating mines and those under development; it amounted to 49,103 feet. Encouraging results were obtained at both the Chisel Lake Mine and the Osborne Lake Mine.



## General Manager's Report (Continued)

### OPERATING MINES

Ore mined and hoisted from underground during 1965 was as follows:

MINE	Tons	AVERAGE ASSAYS				
		Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	Pb-%
FLIN FLON MINE	873,934	0.061	0.90	2.20	3.2	0.2
CHISEL LAKE MINE	293,221	0.056	1.27	0.59	10.3	0.7
STALL LAKE MINE	284,392	0.043	0.34	5.00	0.7	—
SCHIST LAKE MINE	109,010	0.038	1.22	4.76	9.0	—
CORONATION MINE	82,491	0.044	0.24	3.30	0.5	—

Production from Coronation Mine ceased on August 6th, 1965, following depletion of ore reserves.

Development at each of the Company's five producing mines is shown in the following table. The amount of fill and exploration diamond drilling is also included.

MINE	Development Feet	Fill Cubic Yards	Exploration Diamond Drilling Feet
FLIN FLON MINE	10,327	57,723	2,649
CHISEL LAKE	7,444	111,996	16,714
STALL LAKE	1,970	100,926	1,073
SCHIST LAKE MINE	4,270	15,339	5,377
CORONATION MINE	182	—	1,914

### MINES UNDER DEVELOPMENT

#### Osborne Lake Mine (Manitoba)

Development work continued throughout the year at the Company's Osborne Lake Mine and amounted to 8,170 feet. The service shaft was extended 214 feet during the year, to a total depth of 2,229 feet. The production shaft was collared and sunk to a depth of 238 feet. Diamond drilling for exploration purposes amounted to 18,793 feet. Excavation for stations and pockets totalled 1,876 cubic yards.

#### Anderson Lake Mine (Manitoba)

Preparation for development work at the Company's Anderson Lake Mine continued throughout the year. A power line was constructed. Surface buildings were erected and all equipment, with the exception of the hoist, was installed.



#### **Ghost Lake Mine (Manitoba)**

Right-of-way clearing for a power line and an access road to the Company's Ghost Lake Mine was completed. A section of the road was graded.

#### **Flexar Mine (Saskatchewan)**

Flexar Mine, located eight and one-half miles southwest of Flin Flon, is owned by Flexar Mines Limited. Hudson Bay Mining and Smelting Co., Limited controls Flexar Mines Limited through holding 80 per cent of the outstanding stock of that company.

Preparation for development of the mine was completed. Shaft sinking commenced in November and, by year end, had reached a depth of 333 feet below the collar. Diamond drilling for exploration purposes totalled 2,583 feet.

#### **OTHER PROPERTIES**

Manitoba Chromium Limited and White Lake Mine in Manitoba, as well as Hudson-Yukon Mining Co., Limited in Yukon Territory, were inactive and their positions remain essentially unchanged.

#### **CONCENTRATOR**

The tonnage of ore treated in the concentrator during the year and the average assays of the ore treated are shown in the table below. Figures for 1964 are shown for comparison.

	<b>1965</b>	<b>1964</b>
Tons of ore treated	1,640,328	1,585,394
Average tons per day	4,494	4,332
Au — oz. per ton	0.054	0.058
Ag — oz. per ton	0.86	0.94
Cu — %	2.64	2.83
Zn — %	4.3	4.1
Pb — %	0.4	0.4

The following concentrates were produced from ore treated:

		ASSAYS				
	Tons	Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	Pb-%
Copper Concentrates	281,075	0.229	3.26	14.52	3.9	0.4
Zinc Concentrates	113,435	0.045	1.24	0.62	47.1	0.4
Lead Concentrates	2,375	0.822	30.85	1.49	6.7	53.1



## General Manager's Report (Continued)

### CYANIDE PLANT

The cyanide plant treated 943,733 tons of flotation tailings assaying 0.016 oz. per ton gold and 0.27 oz. per ton silver. The treatment yielded a zinc dust precipitate containing 7,080 ounces of gold, 80,885 ounces of silver, 43,236 pounds of copper, and 10,367 pounds of zinc; and a sludge product containing 285,218 pounds of copper and 218,178 pounds of zinc. The precipitate was delivered to the copper converters, while the sludge was returned to the copper concentrate thickener.

There were produced and stockpiled during the year 1,242,665 tons of tailings. The total tonnage and approximate assays of tailings stockpiled to date are as follows:

Tons Stockpiled	ASSAYS					
	Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	S-%	Fe-%
43,599,209	0.019	0.31	0.19	0.8	24.3	27.1

### ZINC PLANT

The zinc plant treated the following materials during the year:

	Tons Treated	ASSAYS			
		Au-oz./ton	Ag-oz./ton	Zn-%	Cu-%
Concentrates	111,965	0.045	1.24	47.1	0.62
Oxide	47,970	0.011	0.95	60.9	0.64
Custom Materials (Purchased)	6,446	—	1.48	49.0	0.39

Slab zinc production from the above amounted to 142,870,455 pounds.

Throughout the year 49,437 tons of zinc plant residue were produced of which 47,861 tons were delivered to the smelter and the remainder sent to stockpile. In addition, 13,762 tons of oxide residue were produced and stockpiled.

Residues in stock at the year end, as well as the average assays for these materials, are as follows:

	Tons	ASSAYS				
		Au-oz./ton	Ag-oz./ton	Cu-%	Zn-%	Pb-%
Zinc Plant Residue	319,954	0.142	3.82	1.05	26.5	—
Oxide Residue	197,808	0.073	3.08	1.13	17.4	13.5



### CADMIUM PLANT

Production of metallic cadmium was higher than in 1964. The purity of the product remained essentially the same.

	<u>1965</u>	<u>1964</u>
Cadmium Production — lbs.	368,208	329,552
Average Purity — %	99.9796	99.9732

### COPPER SMELTER

A lower tonnage of copper concentrates was treated than during the previous year. This was also true in the treatment of custom materials, residues and by-products.

The tonnage and average assay values of the products smelted were as follows:

	<u>Tons</u>	<u>ASSAYS</u>			
		<u>Au-oz./ton</u>	<u>Ag-oz./ton</u>	<u>Cu-%</u>	<u>Zn-%</u>
Hudson Bay Concentrates	282,596	0.229	3.26	14.53	3.9
Residues and By-products	89,871	0.188	4.18	1.94	24.5
Custom Materials	14,412	—	—	—	—

The tonnage and metal content of blister copper produced for the Company's account and shipment to the refinery was as follows:

<u>Tons</u>	<u>Au-ozs.</u>	<u>Ag-ozs.</u>	<u>Cu-lbs.</u>	<u>Se-lbs.</u>
40,359	83,441	1,227,635	79,856,117	101,489

Smelter oxide recovery amounted to 11,052 tons, assaying 31.4% Zn, 2.26% Cu, 1.3% Cd, and 12.8% Pb. This material was delivered to the zinc plant for treatment.

### FUMING PLANT

The tonnage and assay of the slag charged to the fuming furnaces and the oxide produced are shown below.

	<u>Tons</u>	<u>Zn-%</u>
Smelter Slag Charged	402,900	7.2
Oxide Produced	36,918	69.7

The oxide, containing 51,489,000 pounds of zinc, was delivered to the zinc plant for processing to zinc slab.



SCENES FROM THE BRITISH COLUMBIA PROPERTY OF STIKINE COPPER LIMITED IN WHICH HUDSON BAY MINING AND SMELTING CO., LIMITED HOLDS AN INTEREST.



*Central zone along Galore Creek where original discovery was made.*



*Glacier at south end of central zone.*



## **General Manager's Report (Continued)**

### **ZINC OXIDE COMPANY OF CANADA LIMITED**

Zinc Oxide Company of Canada Limited, together with its wholly owned subsidiary, Durham Industries (Canada) Ltd., completed its first year of operation under Hudson Bay ownership. The plant, located in Montreal, has a production capacity of ten thousand tons of zinc oxide per year. During 1965, the plant operated near full capacity and the whole of the production was marketed successfully. During 1966, improvements will be made to equipment and facilities, and the manufacture of zinc dust will be undertaken in a new plant to be erected on the Zinc Oxide Company property.

### **HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LIMITED**

Exploration crews operated in the provinces of Manitoba, Saskatchewan, Ontario and Quebec and in the Northwest Territories. Most of the work was carried out in the Flin Flon, Snow Lake and Thompson areas of Manitoba, and in the Flin Flon, Hanson Lake and Sadler Lake areas of Saskatchewan. The Company participated in joint exploration ventures with other companies in Ontario, Quebec, British Columbia and Arizona.

A total of 154,832 feet of surface drilling was completed on optioned and Company owned claims throughout the year.

Twenty-one properties, owned and submitted by other interests, were examined and four were optioned in 1965. Options were dropped on three properties, leaving five in good standing at the end of the year.

Stikine Copper Limited, in which Hudson Bay Mining and Smelting Co., Limited holds a 19 percent interest, continued detailed investigation of the Galore Creek copper deposit, located ap-

proximately 60 miles south of Telegraph Creek in British Columbia.

The Company has a 50 percent participation in a prospecting venture entered into by Anmercosa Canadian Exploration Limited (a company in the Anglo American Corporation of South Africa group of companies) with Mespi Mines Limited. Under this agreement, exploration by geophysical surveying and diamond drilling was maintained throughout the year on the extensive holdings controlled by Mespi in the Timmins area of Northern Ontario.

A 25 percent interest was acquired in the DeNiza Mining Corporation, a company incorporated in 1965 to carry out exploration in the South-western United States. The 1965 program included airborne geophysical surveys followed by ground surveys of selected areas.

A 33⅓ percent interest is held in an exploration venture directed by Terra Nova Explorations Limited on the Gaspé Peninsula. An interesting copper discovery was made in Lesseps Township, Quebec, about 20 miles west of the Gaspé Copper Mine. The drilling program will be pursued in 1966 to establish the potential of this discovery.

The Company continued investigation by geophysical surveying and drilling on claims acquired in Northern Quebec under a 50 percent participation agreement with Anmercosa Canadian Exploration Limited. Under a similar agreement with Anmercosa, geophysical surveys were completed on an optioned property near Rouyn, Quebec.

The Company participated through its American subsidiary, Beaver Exploration Company, in a drilling program on property located near Jerome, Arizona.

During 1965, the Company acquired 1,146 claims and dropped 1,460 claims. At the end of



## **General Manager's Report (Continued)**

the year the claims held totalled 4,849. In addition, 69,195 acres were held in claim blocks in Saskatchewan.

### **HUDSON BAY AIR TRANSPORT LIMITED**

Satisfactory service was rendered by this Company throughout the year. The aircraft were in the air 2,329 hours and flew 232,565 miles. Since the start of operations in 1939, a total of 3,968,703 miles have been flown. The aircraft were used chiefly in conjunction with exploration work carried out by Hudson Bay Exploration and Development Company Limited.

### **CHURCHILL RIVER POWER COMPANY LIMITED**

The Island Falls hydro plant, located on the Churchill River, fifty-six air miles northwest of Flin Flon, operated throughout the year with no major interruptions. The power generated amounted to 623,005,700 kilowatt hours, slightly lower than last year.

Repairs to the concrete tailrace balcony deck and the tailrace gate guides were undertaken and completed during the summer months.

A decision was made to automate the power plant. A consulting firm has been retained to plan and supervise the project.

No. 5 generator was rewound and the turbine overhauled. The Company's electrical equipment and transmission lines were well maintained.

Precipitation over the entire Churchill watershed was near normal and totalled 18.59 inches. Reindeer Lake storage was maintained at a satisfactory level.

### **NORTHERN MANITOBA POWER COMPANY LIMITED**

Light and power requirements for the towns of Flin Flon and Snow Lake in Manitoba were supplied by Northern Manitoba Power Company Limited, a wholly owned subsidiary of Churchill River Power Company Limited. Power requirements for the town of Flin Flon were 3.9 percent higher than for the previous year, and for the town of Snow Lake were .5 percent higher.

### **NORTHERN POWER LIMITED**

This Company, a wholly owned subsidiary of Northern Manitoba Power Company Limited, supplied the light and power requirements for the town of Creighton, Saskatchewan, and the Boundary Area, located adjacent to Flin Flon on the Saskatchewan side of the inter-provincial boundary. Power consumption increased by 9.9 percent over the previous year.

### **RESEARCH DEPARTMENT**

Intensive research continued on the treatment of pyritic mill tailings for the recovery of iron and sulphur products in a marketable form.

Flowsheets were established for the flotation of Flin Flon talc ores and Osborne Lake sulphide ore.

A detailed survey of the cadmium plant was conducted with a view toward refinements to our present process.

Investigations were made on the pelletizing and fluosolids roasting of copper concentrates as a possible means of increasing smelter capacity.

Assaying facilities were maintained and extended to provide spectrographic examination of all exploration samples for sixteen elements.



#### **MECHANICAL AND CONSTRUCTION DEPARTMENT**

Expenditures for new construction in 1965 totalled \$1,746,000. The major portion of this new construction took place in the Snow Lake area. A second headframe and hoisthouse were completed at the Osborne Lake Mine. The headframe and associated minesite buildings were almost completed at the Anderson Lake Mine.

Flotation cell replacement in the concentrator continued with 98 new cells being installed. A pneumatic lime unloading system was installed at the concentrator lime storage.

The surface plant was completed at the Flexar Mine.

All plant buildings and equipment were well maintained throughout the year.

It is expected that the work load experienced in 1965 will continue throughout 1966.

#### **ELECTRICAL DEPARTMENT**

Plant electrical consumption was 562,357,000 kilowatt hours for the year, slightly below that of 1964.

A 110 KV transmission line was constructed between Snow Lake and the Stall Lake Mine, a distance of 3.8 miles. A 12,000 volt line was also completed from the Stall Lake Mine to the Anderson Lake Mine.

Surface electrical construction was completed at the Osborne Lake Mine production shaft and at Flexar Mine. The electrical program at the Anderson Lake Mine was approximately 70 percent completed.

One 5000 H.P. motor generator set was factory overhauled during the year.

The usual high standard of electrical maintenance was carried on throughout the year and was reflected in the satisfactory operation of all equipment.

#### **SURFACE AND TRANSPORTATION DEPARTMENT**

This department carried on its regular task of supplying the mines with backfill, the smelter with flux, and the fuming plant with residue. Other duties included the haulage of ore to Flin Flon from the outlying mines in that area; spotting of incoming cars of freight, coal, ore from the Snow Lake area, and custom concentrates for unloading; assembling of outgoing zinc and copper shipments; and delivering plant operating supplies, including winter freight to the Island Falls power plant and community.

All roads in the vicinity of the Company's metallurgical plants were maintained by this department.

#### **HEALTH AND SAFETY**

The Employees' Health Association rendered its usual efficient service throughout the year. The general health of all employees continued to be good.

All new employees were instructed in safe working methods and enrolled in First Aid Classes. Personnel in the underground mines and safety department co-operated in the training of mine rescue workers. A number of the supervisory staff received a follow-up course in accident prevention.

An aggressive accident prevention policy was pursued throughout the year resulting in a favorable record. The accident severity rate was reduced for the third consecutive year while the frequency rate dropped to the lowest yet experienced.



## General Manager's Report (Continued)

A well organized and varied recreation program was conducted throughout the entire year by each of the employee-operated Community Clubs in Flin Flon, Island Falls and Snow Lake.

The Company-developed recreational facilities at Phantom Lake again proved popular and contributed toward the general health and happiness of all residents.

### WATER SUPPLY

The rainfall for the year, 15.03 inches, although 2.93 inches below last year, was still 2.02 inches above the average for the last ten years in the Flin Flon area. The snowfall, 66.5 inches, was more than last year and 10.7 inches above the average for the last ten years.

### GENERAL

The Collective Bargaining Agreement with the labor unions affiliated with the Canadian Labor Congress, the American Federation of Labor, and the Congress of Industrial Organizations terminated on April 15th, 1965. Following lengthy negotiations, the Collective Bargaining Agreement was renewed for a two-year period, effective September 16th, 1965. In the renewal of this agreement, the following wage increases were granted:

1. Six percent increase for all hourly rated employees retroactive to April 16th, 1965.

2. Three-cent upward adjustment for all hourly rated first class tradesmen, effective September 16th, 1965.
3. Five percent increase for all hourly rated employees, effective April 16th, 1966.
4. Fifteen cents per hour Sunday premium pay for all regularly scheduled shifts worked on a Sunday.

The average number of employees on the payroll during 1965 was 2,682, a decrease of 32 from the previous year.

Sixty-seven employees of the Company became members of the Twenty-Five Year Club during the year, making a total of 696 who have joined the club since the start of operations. Of these, 516 are still on the active payroll.

Relations between labor and management continued to be of a high standard with a feeling of mutual understanding prevailing at all times.

Respectfully submitted,

*W.A. Morrice*

General Manager.





#### FLOWER GARDENS AT PHANTOM LAKE

*This resort, on the outskirts of Flin Flon, was developed by the Company for the use of its employees and families.*

#### NO. 9 GREEN PHANTOM LAKE GOLF COURSE

*The original area, now occupied by the golf course, consisted of muskeg and rock. It was improved by the Company and golfing enthusiasts.*





# CONSOLIDATED BALANCE

## ASSETS

### CURRENT ASSETS:

	1965	1964
Cash .....	\$ 2,538,722	\$ 2,600,369
Government of Canada securities (at cost plus discount amortized) and accrued interest (market value 1965 — \$15,317,198; 1964 — \$28,971,901) .....	15,399,641	28,890,077
Short-term commercial notes .....	—	988,260
Accounts receivable — metals and sundry .....	6,354,823	5,542,690
Inventories of metals and products (Note 2) .....	13,745,443	9,337,818
Materials and supplies, at average cost .....	4,076,953	4,045,805
Total current assets .....	<u>42,115,582</u>	<u>51,405,019</u>

### INVESTMENTS:

Marketable securities, at cost (market value 1965 — \$19,281,101; 1964 — \$8,542,050) .....	<u>18,851,904</u>	<u>7,638,154</u>
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### INTERESTS IN EXPLORATION AND OTHER COMPANIES:

Unconsolidated subsidiaries (Note 1):		
Capital stock, at cost (equity value) .....	3,197,895	3,178,066
Advances .....	3,216,166	1,427,434
	<u>6,414,061</u>	<u>4,605,500</u>
Less allowance for losses .....	3,105,360	2,753,077
	<u>3,308,701</u>	<u>1,852,423</u>
Other companies, at cost (no quoted market value) .....	1,130,319	—
	<u>4,439,020</u>	<u>1,852,423</u>

### FIXED ASSETS—at cost

Plant and equipment .....	64,771,244	62,913,081
Mining claims, oil rights and land .....	12,280,098	12,129,817
	<u>77,051,342</u>	<u>75,042,898</u>
Less accumulated depreciation and depletion .....	59,190,453	57,609,033
	<u>17,860,889</u>	<u>17,433,865</u>

### OTHER ASSETS:

Prepaid preparatory mining expense .....	9,844,531	10,067,465
Deferred charges and sundry assets, at cost .....	2,475,474	2,773,949
	<u>12,320,005</u>	<u>12,841,414</u>
	<u>\$95,587,400</u>	<u>\$91,170,875</u>



**SHEET AS AT DECEMBER 31, 1965** (with 1964 figures for comparison)

**LIABILITIES**

**CURRENT LIABILITIES:**

	<b>1965</b>	<b>1964</b>
Accounts payable and accrued liabilities .....	\$ 1,856,866	\$ 2,887,181
Accrued payroll .....	565,544	512,524
Income and other taxes payable .....	3,226,949	3,922,775
Total current liabilities .....	<u>5,649,359</u>	<u>7,322,480</u>

<b>DEFERRED INCOME TAXES</b> (Note 3) .....	<u>3,488,000</u>	<u>3,046,000</u>
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**CAPITAL**

**CAPITAL STOCK AND EARNED SURPLUS:**

Capital stock:		
Authorized, 3,000,000 shares of no par value		
Issued and fully paid, 2,757,973 shares .....	30,984,205	30,984,205
Earned surplus .....	55,465,836	49,818,190
	<u>86,450,041</u>	<u>80,802,395</u>

On behalf of the Board of Directors:

MAURICE W. RUSH, Director

ERIC S. AUSTIN, Director

\$95,587,400

\$91,170,875

The accompanying notes are an integral part of the financial statements.



**CONSOLIDATED STATEMENT OF PROFIT AND LOSS**  
**YEAR ENDED DECEMBER 31, 1965** (with 1964 figures for comparison)

**REVENUE:**

	<b>1965</b>	<b>1964</b>
Revenue from metals and products .....	\$61,204,027	\$55,885,069
Less freight, refining and selling expenses .....	6,815,522	6,796,099
	<u>54,388,505</u>	<u>49,088,970</u>
Revenue from sales of power and from treatment of custom concentrates .....	498,271	492,466
	<u>54,886,776</u>	<u>49,581,436</u>

**EXPENDITURES:**

Production costs, adjusted for inventory values .....	25,033,082	23,716,150
Preparatory mining expense charged to operations .....	2,537,465	2,024,711
Ore royalties .....	1,759,601	1,481,136
Taxes, other than on income .....	835,211	735,614
General administrative expenses .....	573,886	444,493
Salaries to executive officers .....	186,458	181,398
Counsel fees .....	17,147	7,165
Directors' fees .....	20,041	19,839
	<u>30,962,891</u>	<u>28,610,506</u>
	<u>23,923,885</u>	<u>20,970,930</u>

**DEDUCT:**

Depreciation .....	1,489,729	1,658,685
Depletion .....	162,169	165,303
Allowance for losses on investment in and advances to subsidiaries for exploration .....	2,000,000	1,800,000
	<u>3,651,898</u>	<u>3,623,988</u>
	<u>20,271,987</u>	<u>17,346,942</u>

**OTHER INCOME:**

Income from investments and oil rights .....	1,484,115	1,426,331
Gain on disposal of investments and fixed assets .....	1,943	9,050
	<u>1,486,058</u>	<u>1,435,381</u>

<b>PROFIT BEFORE TAXES ON INCOME</b> .....	21,758,045	18,782,323
<b>ESTIMATED TAXES ON INCOME</b> (Note 3) .....	5,768,000	5,687,000
<b>NET PROFIT FOR THE YEAR</b> — transferred to earned surplus ...	<u>\$15,990,045</u>	<u>\$13,095,323</u>

**CONSOLIDATED STATEMENT OF EARNED SURPLUS**

<b>BALANCE BEGINNING OF YEAR</b> .....	\$49,818,190	\$46,375,772
Add net profit for the year .....	15,990,045	13,095,323
	65,808,235	59,471,095
Deduct dividends paid — \$3.75 per share (1964 — \$3.50) .....	10,342,399	9,652,905
<b>BALANCE END OF YEAR</b> .....	<u>\$55,465,836</u>	<u>\$49,818,190</u>

The accompanying notes are an integral part of the financial statements.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 1965

1. The accompanying consolidated financial statements include the accounts of Hudson Bay Mining and Smelting Co., Limited and the following wholly owned operating subsidiaries:

Churchill River Power Company Limited  
Zinc Oxide Company of Canada Limited  
(including its wholly owned subsidiary)  
Hudson Bay Holdings Limited

The accounts of other subsidiaries are not consolidated herein because they are either inactive or operate at cost and therefore have had no profits or losses since acquisition.

2. Inventories at December 31 comprise the following:

	<u>1965</u>	<u>1964</u>
Metals at estimated sales value .....	\$12,357,649	\$7,908,888
Metals and products (finished, in process and raw materials), at cost or market whichever is the lower .....	1,387,794	1,428,930
	<u>\$13,745,443</u>	<u>\$9,337,818</u>

3. Prepaid preparatory mining expense and costs of participation in certain mining companies (both of which are regarded as assets and therefore have not yet been charged to the Profit and Loss Account) to the extent that they are allowable deductions for tax purposes, are claimed in the determination of taxable income in the year in which they are incurred. The resultant tax reduction is included in the Balance Sheet as a liability under the heading of "Deferred Income Taxes", and this makes provision for those future periods when amounts claimable for tax purposes will be less than the relative charges to the Profit and Loss Account. The amount of "Deferred Income Taxes" was increased by \$442,000 in 1965 and by \$40,000 in 1964, with corresponding charges being made to the Profit and Loss Account.

4. Foreign currencies have been converted to Canadian dollars at the following rates: income and expense and non-current assets and liabilities at rates in effect at dates of transactions; current assets and liabilities at rates in effect at the end of the respective years.



## AUDITORS' REPORT

To the Shareholders of  
Hudson Bay Mining and Smelting Co., Limited:

We have examined the consolidated balance sheet of Hudson Bay Mining and Smelting Co., Limited and its consolidated subsidiaries as at December 31, 1965 and the consolidated statements of profit and loss and earned surplus for the year ended on that date. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the accompanying consolidated balance sheet and consolidated statements of profit and loss and earned surplus present fairly the financial position of the companies as at December 31, 1965 and the results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

DELOITTE, PLENDER, HASKINS & SELLS  
Chartered Accountants, Winnipeg, Canada.

PEAT, MARWICK, MITCHELL & CO.  
Certified Public Accountants, New York, N.Y.

February 18, 1966.



## LOCATION MAP

SHOWING CANADIAN PROPERTIES OF HUDSON BAY MINING AND SMELTING CO. LIMITED  
OWNED WHOLLY OR IN PART

